



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 10/689,716

Confirmation No. : 3956

Applicant : Nelson GONZALEZ, et al.

Filed : October 22, 2003

TC/A.U. : 2676

Examiner : Joni Hsu

Title : Motherboard for Supporting Multiple Graphics Cards

Docket No. : 19463-0002

Customer No. : 24633

**MAIL STOP AMENDMENT**

Commissioner of Patents

P.O. Box 1450

Alexandria, Virginia 22313-1450

**DECLARATION UNDER 37 C.F.R. §1.131**

Sir:

We, the undersigned inventors, Nelson Gonzalez and Humberto Organvidez declare that:

1. We are the inventors of the invention claimed in the above captioned U.S. Patent application.
2. We are informed that U.S. Patent Publication No. 2005/041031 to Diard ("Diard") having a filing date of August 18, 2003, was cited in an Office Action in the above-captioned U.S. application and was combined with previously considered U.S. Patent Publication 2004/0088469 to Levy ("Levy") in rejecting the claims of the above captioned application under 35 U.S.C. §103.
3. Prior to August 18, 2003, we conceived and reduced to practice in the United States the invention claimed in the above-captioned application.
4. As evidence of the prior conception and reduction to practice, we provide a description as well as internal documentation showing development of the product covered by the claims of the above-captioned application. We conceived of the invention by at least October of 2002. At that time, the project was known internally by the name 'Gemini.' Attachment A shows a log of files relating to the conception and reduction to practice of the 'Gemini' project,

including files dating back to October of 2002, , such as the issue of multiple video card support for OpenGL and Direct3D in Windows®. Subsequent to that date, we diligently continued reducing the invention to practice. Once ready, the product specifications for the motherboard capable of housing multiple video cards were described to various outside vendors for actual production. As an example, Attachment B, dated July 10, 2003, is an e-mail confirmation from N. Wang of Supermicro Computer, Inc., a motherboard manufacturer headquartered at 980 Rock Ave. San Jose, CA 95131, confirming the product specifications for a motherboard having a chipset for managing data transfers within the motherboard, a scalable interconnect connecting to said motherboard, and a plurality of high-speed video card slots connected to said interconnect, as claimed in the above captioned patent application. This specification is evidence of reduction to practice of the claimed invention as it provides sufficient product detail to allow one of reasonable skill in field of the motherboards fabrication to manufacture the claimed invention. Thus, we believe that we have demonstrated conception and reduction to practice of the claimed invention prior to the effective date of Diard. Alternatively, we believe that we have demonstrated conception prior to the effective date of Diard with due diligence from prior to said date to a subsequent reduction to practice of the claimed invention.

5. In addition, we promptly notified outside patent counsel of the invention claimed in the above referenced patent application. We worked diligently with outside patent counsel to file the above referenced patent application on October 22, 2004.

6. As further evidence of prior conception and reduction to practice, we note that the assignee of the above captioned application, Alienware Labs Corporation, has been involved with development of graphics systems having multiple processors well before the August 18, 2003 filing date of Diard. As evidence of this research activity, submitted herewith is a copy of commonly assigned U.S. Patent Application Publication 2005/0012749 to Gonzalez et. al.

("Gonzalez") filed on July 15, 2004. Both of the inventors of the above captioned application are among the inventors of Gonzalez. Like Diard, Gonzalez relates to the concurrent use of multiple video cards by assigning each video card to generate instructions for drawing a predetermined portion of a single screen which is displayed to the user through a monitor or other visual output device. In fact, we believe that the teachings of Gonzalez cover the invention of Diard.

I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section §1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity if the application or any patent issuing thereon.

  
\_\_\_\_\_  
Nelson Gonzalez  
\_\_\_\_\_  
Date  
\_\_\_\_\_  
Humberto Organvidez  
\_\_\_\_\_  
Date

History of S/Gemini/Direct3D/D3DProcessor.cpp

History: 22 items

| Version | User     | Date            | Action           |
|---------|----------|-----------------|------------------|
| 13      | Ernesto  | 1/09/03 4:28p   | Checked in S/Gen |
| 12      | Ernesto  | 1/09/03 1:30p   | Checked in S/Gen |
| 11      | Ernesto  | 1/07/03 5:56p   | Checked in S/Gen |
| 10      | Ernesto  | 1/06/03 5:46p   | Checked in S/Gen |
| 9       | Ernesto  | 1/06/03 10:26a  | Checked in S/Gen |
| 8       | Ernesto  | 1/02/03 12:42p  | Checked in S/Gen |
| 7       | Humberto | 12/20/02 6:51p  | Checked in S/Gen |
| 6       | Ernesto  | 12/20/02 4:51p  | Checked in S/Gen |
| 5       | Ernesto  | 12/19/02 5:51p  | Checked in S/Gen |
| 4       | Humberto | 12/19/02 2:31p  | Checked in S/Gen |
| 3       | Humberto | 12/15/02 10:01p | Checked in S/Gen |
| 2       | Ernesto  | 12/06/02 4:14p  | Checked in S/Gen |
| 1       | Humberto | 10/25/02 6:30p  | Created          |

Close View Details Get Check Out Diff Pin Rollback Report Help

History of S/Gemini/Direct3D/Direct3DDeviceStubs.h

History: 3 items

| Version | User     | Date           | Action               |
|---------|----------|----------------|----------------------|
| 3       | Ernesto  | 1/21/03 4:38p  | Checked in S/Gemini/ |
| 2       | Humberto | 10/24/02 7:22p | Checked in S/Gemini/ |
| 1       | Humberto | 10/22/02 1:03p | Created              |

Close View Details Get Check Out Diff Pin Rollback Report Help

**From:** Nelson Wang [NelsonW@supermicro.com]  
**Sent:** Thursday, July 10, 2003 11:54 PM  
**To:** Erik Cabbage; Jeff Chen  
**Subject:** RE: Project Dual PCI-e Motherboard

Hi Erik:

We basically defined the spec of the board during the conf. call today. So the minutes will be basically the spec of the motherboard.

**Positioning:** High End Workstation, Dual High End Graphics Cards

**Processor:** Dual Xeon DP (Prestonia)

**Chipset:** Tumwater

**Memory:** DDR-II 400

**Expansion:** 1 PCI-e x 16 + 1 PCI-e x 8; both with slot connectors of x 16

both PCI-e slot connectors will have enough clearance to populate two PCI-e Graphics cards (each occupies space of two slots)

PCI-e x 16 graphics cards will also be compatible with x 8 bus.

3 PCI 32-bit

**Storage Interface:** 2 S/ATA RAID 0/1 + 4 S/ATA => MUST!!

1/2 ATA/100

SCSI RAID (not so critical)

**Communication:** Min. 1 Gb, best 2 Gb for graphics server

Ideally use Northway dedicated PCI-e NIC

**Timeframe is:**

7/24: Block Diagram

7/25: Final Block Diagram

8/25: Rev 1.0 board for testing

Please let me know if there is anything to add.

Thanks,

Nelson.